

FIG. 1

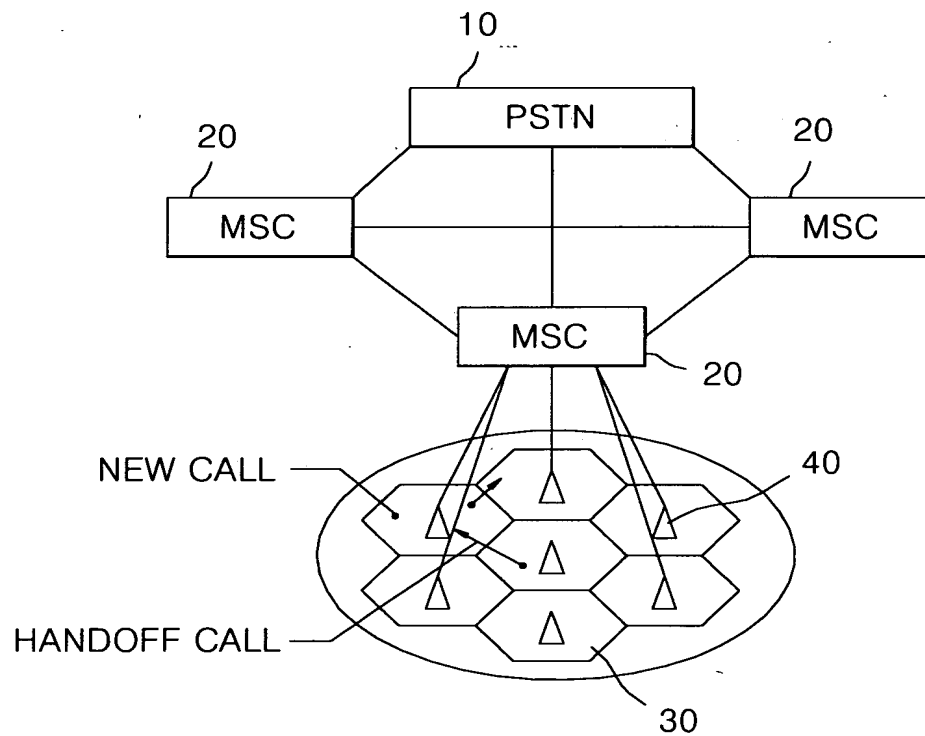


FIG.2

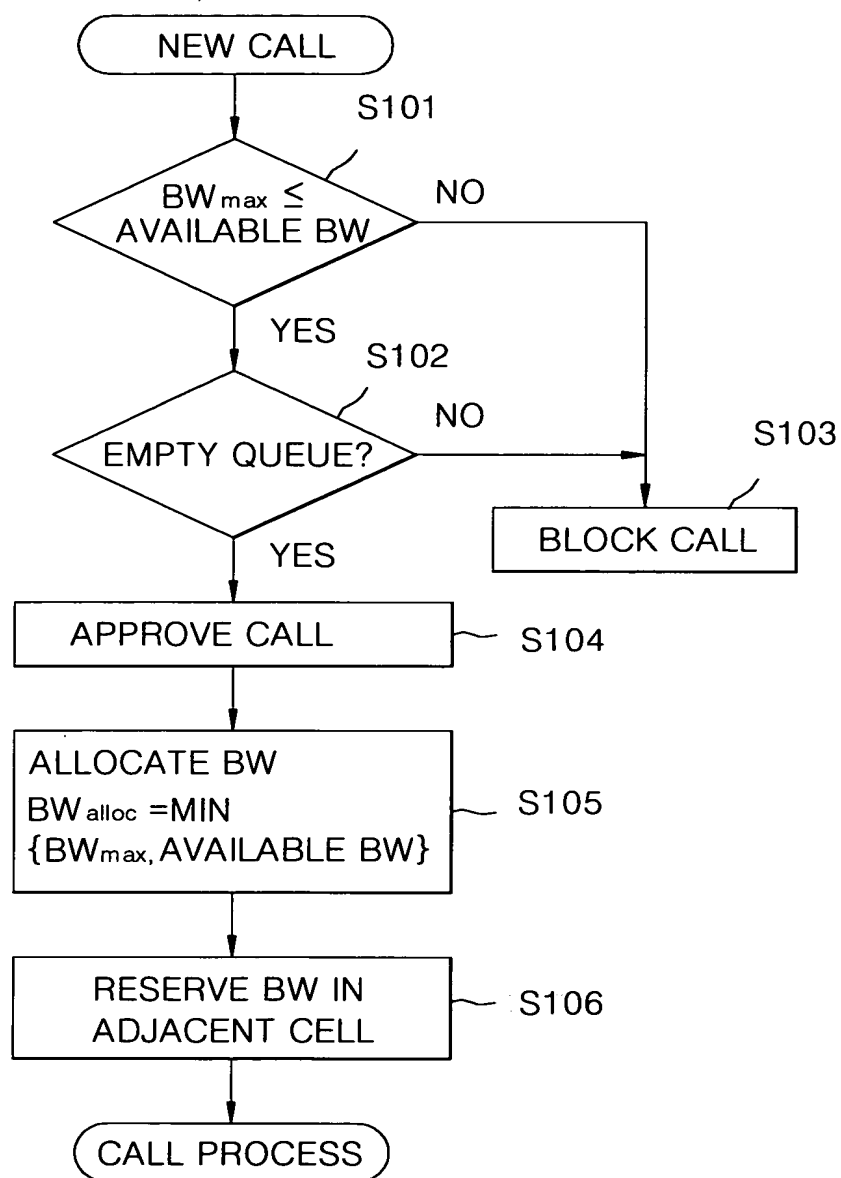


FIG.3

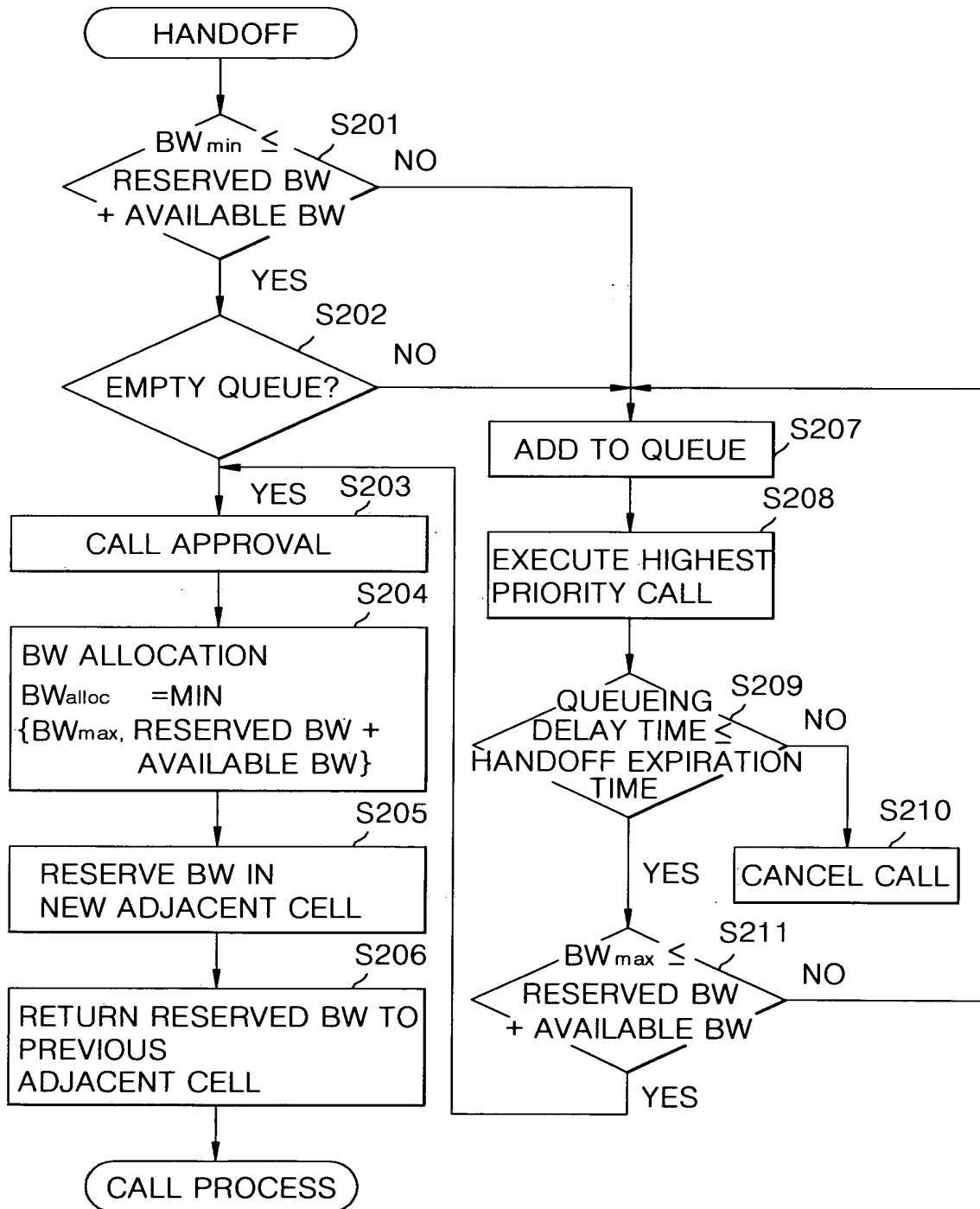
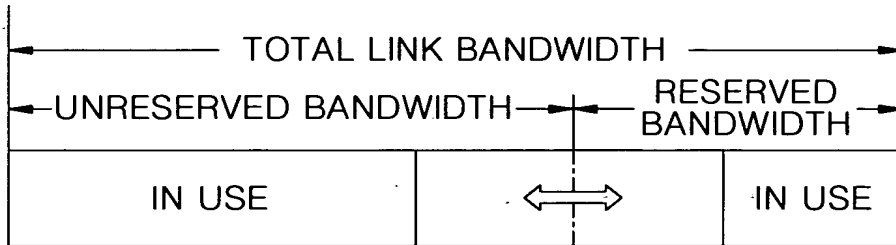


FIG.4

(a)



(b)

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Monitor( $CB_{THRESHOLD}$ ,  $HB_{THRESHOLD}$ , time_interval)
{
    while(TRUE) {
        wait(time_interval);  $CB_{MEASUREMENT}$ ,  $HD_{MEASUREMENT}$  CALCULATION;
        if ( $CB_{MEASUREMENT} > CB_{THRESHOLD} \ \&\& \ HD_{MEASUREMENT} < HD_{THRESHOLD}$  )
             $BW_{RESERVED} = \text{MIN}(\text{down} * BW_{RESERVED}, BW_{RESERVED} + BW_{AVAILABLE})$ 
        else if ( $CB_{MEASUREMENT} < CB_{THRESHOLD} \ \&\& \ HD_{MEASUREMENT} > HD_{THRESHOLD}$  )
             $BW_{RESERVED} = \text{MIN}(\text{up} * BW_{RESERVED}, BW_{RESERVED} + BW_{AVAILABLE})$ 
        else if ( $CB_{MEASUREMENT} < CB_{THRESHOLD} \ \&\& \ HD_{MEASUREMENT} < HD_{THRESHOLD}$  )
            No Adaptation
        else if ( $CB_{MEASUREMENT} > CB_{THRESHOLD} \ \&\& \ HD_{MEASUREMENT} > HD_{THRESHOLD}$  )
            CELL splitting
        endif;
    }
}
    
```